theory. Consequently, ozone does not only influence the physical process but exerts an essential influence on the chemical kinetics by dissociating into atomic oxygen. Results were compared with the influence of ozone on the critical conditions for the inflammation of butane-oxygen mixtures (S. A. Kamenetskaya, S. Ya. Pshezhetskiy, and N. A. Slavinskaya, Ref 1). The increase in the rate of combustion due to ozone is especially striking at low temperatures. At higher temperatures cracking reactions of the hydrocarbon molecules and radicals, and equilibrium concentrations of free radicals and atoms become more and more predominant. There is a linear relation between the rate of combustion and $\sqrt{C_{O_3}}(C_{O_3}$ - ozone concentration). C. C. Schubert and R. N. Pease (Ref 5) made similar observations with slow reactions at room temperature. There are 4 figures, 4 tables, and 7 references, 3 of which are Soviet.

The Effect of Ozone on the Speed of Combustion of Hydro- SOV/76-32-12-3/32
carbons

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